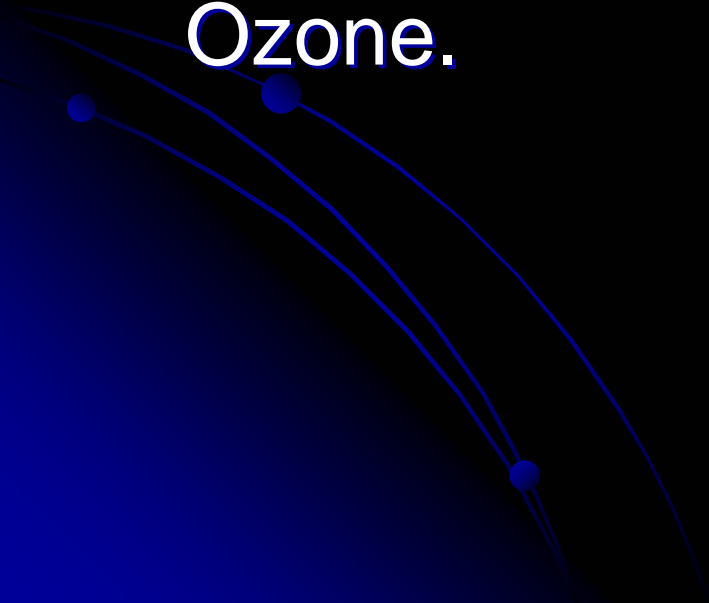


The Ozone Monitoring Station

The birth of an Ozone Site

The QA manual contains a description of :
Who, where , when and how we monitor
Ozone.



Reasons to clean up our air



Visibility



What we do affects many things



Example of pollution



We monitor wind
so we know the direction and speed
the ozone travels



We use different types of structures



All sites are required to have the appropriate manuals and supplies for the equipment on site

We use Plastifabs



Buildings



Trailers



Weather problems (when does the season start?)



Probe height must be $> 9\text{ft } 9\text{in}$
and $< 50\text{ft}$ from the ground

Site Name: _____ Site #:

--	--	--	--	--	--	--	--	--	--

Address: _____

City: _____ County: _____

1. Vertical distance from ground to probe: _____ Meters
Must be between 3 and 15 meters. NOTE:
The inlet probe must be located away from
dirty, dusty areas.
2. Distance from support structure? _____ Meters
Distance both horizontally and vertically
should be ≥ 1 meter.
3. Is there an unrestricted air flow in an arc of _____ Yes _____ No
270° (180° if on the side of a building) and is
the predominant wind direction included in the
arc?
4. Distance from probe to drip line of nearest
tree(s)? _____ Meters
The distance between probe and nearest
tree dripline should be ≥ 20 meters. If the
tree acts as an obstruction, it must be ≥ 10
meters to drip line.
5. Distance from the inlet probe to the nearest
obstacle? _____ Meters
The distance must be at least twice the
height of the portion of the obstacle that
protrudes above the inlet probe.

6. Comments: _____

Completed by: _____
Agency: _____

The diagram illustrates the components and connections of an ozone monitoring station. An inset shows a probe with a sample line and a calibration source line. The main system includes a 12V battery, an ozone analyzer, an ozone transfer standard, a strip chart recorder, and a data logger. The sample line connects the probe to the analyzer, which then connects to the transfer standard. The transfer standard outputs to both the strip chart recorder and the data logger. A calibration source line also connects to the analyzer.

Ozone Monitoring Station

Figure 3-2

Figure 3-2

Weather sometimes changes our access



Sometime it's a good old ladder



Road conditions vary



One of the site criteria, is access

finally the site



Upon entering the site check it over to make sure its ok.
Before leaving did you enable the data logger and are the settings
of the equipment in the proper position. Are all security issues in pla

STATION CHECKLIST	
Site name	
Site number	
Operator	
Record the time the station was entered.	PST
Record the date the station inspection.	
THE MONITORING STATION	
2. Has any damaged occurred to the station since the last inspection?	
Are there any unusual noises or odors?	
THE ANALYZER	
Is the power on?	
Is the sample flow set to 2.0 LPM?	
Is the selector switch in the "operate" mode?	
Is the solenoid valve cycling every 10 seconds?	
Has channel 03 on the data logger been disabled?	
Has it been noted on the strip chart?	
Record the sample chamber temperature.	°C
Record the unadjusted sample frequency.	KHz
Record the sample chamber pressure.	Atm
Is the control frequency 50.000?	
Do the analyzer, recorder and data logger all read the same?	
Record the analyzer span setting.	
THE TRANSFER STANDARD	
Is the ozone adjust thumbwheels set to 000?	
Is the auto/man switch in the "auto" position?	
Is the ozone switch in the "off" position?	
Is the generator pump switch in the "on" position?	
Is the selector switch in the "operate" position?	
Is the T/P switch in the "on" position?	
Is the valve switch in the "on" position?	
Is the sample pump switch in the "on" position?	

How long was the transfer standard allowed to warm up? Allow to warm up for at least 30 hours.	Min: max:
Is the coarse gamma-ray flowmeter set to CLPM?	
Is the sample flowmeter set to CLPM?	
Record the corrected mass flow frequency.	Min: max:
Is the corrected frequency CLM?	
Was a calibration check performed?	
Where the results from the calibration within the limits?	
FILL IN THE FOLLOWING	
When any adjustments, schedule the transfer standard?	
When any adjustments, schedule the transfer standard?	
Was a leak check performed on the transfer standard?	
Was a leak check performed on the transfer standard?	
Has the mass flow been checked?	
When was the flow leak replaced?	
Has the transfer standard been turned off?	
Is the transfer standard coarse pump switched to OFF?	
Is the coarse pump switched to OFF?	
TP1 safety is ON, and is safety ON Pump and safety OFF?	
Is the flowmeter on the coarse pump set to CLM?	
Has the flowmeter on the coarse pump been checked?	
RECORD THE FOLLOWING	
Does the data on the transfer standard need the mass flow, the flowmeter?	
If it does not, when is the difference between the two?	Min: max:
Does the transfer standard need to be replaced?	
Does the transfer standard need to be changed?	
Are any transfer standard supplies needed?	
Record the time the transferring standard was left.	Min: max:
ADDITIONAL COMMENTS OR REMARKS	

We have equipment



different ways we display our equipment



Electronic equipment must be kept
Between 20 and 30 C temperature
(That's 68 to 86 degrees F)

Sometimes the equipment needs attention



Clean air is important to ALL of us

